



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/837,103 | 04/18/2001 | Jun Ishii | 39303.20244.00 | 9005 |

25224 7590 06/03/2005
MORRISON & FOERSTER, LLP
555 WEST FIFTH STREET
SUITE 3500
LOS ANGELES, CA 90013-1024

| |
|----------|
| EXAMINER |
|----------|

VUONG, BACH Q

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2653

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/837,103

Applicant(s)

ISHII ET AL.

Examiner

Bach Q. Vuong

Art Unit

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
4a) Of the above claim(s) 28-37 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,5-9,11,16-18 and 23-26 is/are rejected.
7) ☒ Claim(s) 2-4,10,12-15,19-22 and 38-43 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/17/04.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

This communication is responsive to an amendment filed on 08/04/2004

Election/Restrictions

1. Applicant's election without traverse of claims 1-27 and 38-43, filed on 08/04/2004 is acknowledged. Because Applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. Claims 28-37 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species without traverse, there being no allowable generic or linking claim.

3. Claims 1-27 and 38-43 will be examined in the present invention.

Claim Objections

Claims 38 and 41 are objected to under 37 CFR 1.75(a) for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 38, line 5, Applicant is suggested to insert terms “ carrying said pieces of music data information ” after the term "analog signal"; Otherwise, it is unclear and confusing. Also, at line 8, a term “stored” should be deleted.

In claim 39, line 7, Applicant is suggested to change a term “storing” to –carrying – to make the limitation clear that an analog signal can carry said pieces of music data information. Otherwise, it is unclear and confusing.

In claim 41, line 6, Applicant is suggested to change a term “ storing” to -- carrying –. The suggestion is applied to claim 39 above. Also, at line 10, a term “storing” should be changed to –for storing--.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5-9, 11, 16-18 and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osakabe et al. (US 5,933,430 -hereinafter referred to '430) in view of Higurashi (US 4,819,088 -hereinafter referred to '088).

Osakabe et al., according to Figs. 10-37, show a method for recording digital data codes representative of pieces of data information and asynchronously produced and irregular intervals an information storage medium comprising the steps of: a) supplementing synchronous data codes representative of meaningfulness from the aspect of definitions of the pieces of data information in the irregularly intervals among the digital data codes for producing a data stream (see column 12, line 14 through column 13, line 12); and c) recording the pieces of data information and the meaningfulness in an information storing medium (see MD recorder) in as recited in each of claims 1. However, Osakabe et al. do not specifically disclose the use of converting the digital data codes and the synchronous data codes to an analog data signal storing the pieces of data information and the meaningfulness through a different phase shift keying. Higurashi, according to Fig. 1, teaches the use of different phase shift keying (see 4-phase DPSK modulator in Fig. 1) for converting digital data and synchronous data as recited in claim 1. It has been obvious to one of ordinary skill in the art at the time the invention was made to incorporate

Art Unit: 2653

the DPSK as taught by Higurashi into the data transmission of Osakabe et al. in order to provide a digital data into serial-to-parallel conversion.

Regarding claim 5, see the rejection above and further refer to Figs. 22-23 of reference '430 which show a method for recording digital data codes representative of pieces of data information and asynchronously produced and irregular intervals an information storage medium which the step c) includes the sub-steps of c-1) converting the analog data signal to digital data signal through a pulse code modulation (see column 17, lines 11-40), and c-2) driving a recording head (note: driving a recording head is inherently included in the recorder) for writing the digital data signal in the information storage medium.

Regarding claim 6, see Figs. 31-37 of reference '430 which show a method for recording digital data codes representative of pieces of data information and asynchronously produced and irregular intervals an information storage medium wherein the digital data codes area broke down into sets of digital codes representative of a performance of tune on a musical instrument.

Regarding claim 7, see Figs. 31-37 of reference '430 which show the set of digital data codes are representative of messages in the MIDI (Musical Instrument Digital Interface) standards (see MIDI message in Figs. 33-37 of reference '430).

Regarding claim 8, see Figs. 31-37 of reference '430 which show each of the digital data codes and each of the synchronous data codes have a data length equal 4 bits, and sixteen relative angular positions are selectively assigned to the digital data codes and the synchronous data codes before a modulation to analog data signal in the step b (see Figs. 35-37 for details).

Art Unit: 2653

Regarding claim 9, see Figs. 31-37 of reference '430 which show the modulation is a quadrature modulation (4-phase DPSK modulator).

Regarding claim 11, see the rejection applied to claim 1 above.

Regarding claim 16, see Figs. 1-10 and 14-23 of reference ' 430 which show a recording apparatus for recording digital data codes further comprising a write-in unit responsive to the analog data signal for recording the pieces of the data information and the meaninglessness in an information storage medium (see MD recorder and IEEE-1394 converters in Figs. 1-2 and 10 or 14-15).

Regarding claims 17 and 18, see the rejection applied to claims 5.

Regarding claim 23, see the rejections applied to claim 6.

Regarding claim 24, see the rejections applied to claim 7.

Regarding claim 25, see the rejections applied to claim 8.

Regarding claim 26, see the rejections applied to claim 9.

Allowable Subject Matter

Claims 2-4, 10, 12-15, 19-22, 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 2-4, 10, 12-15, 19-22 and 27 are allowable over the prior art of record because all the cited references, considered as closest prior art and viewed in combination or individually, fails to suggest or fairly teach a method and an recording apparatus for recording digital data codes representative of pieces of data information and asynchronously produced at irregular intervals in an information storage medium including

Art Unit: 2653

a combination of all features as particularly recited in each of claims 2, 3, 10, 12, 13, 19, 20 and 27. Claims 4, 14, 15, 21, 22 fall with their respective parent claim.

Claims 38-43 are would be allowable if rewritten or amended to overcome the objection(s) under 37 CFR 1.75 (a), set forth in this Office action.

Claims 38 and 41 are allowable over the prior art of record because all the cited references, considered as closest prior art and viewed in combination or individually, fails to suggest or fairly teach a method and an recording apparatus and a method for recording digital data codes representative of pieces of data information and asynchronously produced at irregular intervals in an information storage medium including a combination of all features as particularly recited in each of claims 38 and 41. Claims 39, 40, 42 and 43 are allowable with their respective parent claim.

Cited References

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited reference relates to a data recording method and apparatus having MIDI data streams and an analog/digital audio converter.

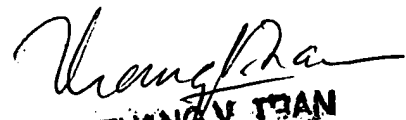
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bach Q. Vuong whose telephone number is (571) 272-7596. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-5789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2653

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BV
May 23, 2005


THANG V. TRAN
PRIMARY EXAMINER